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## Summary of Safety and Effectiveness

The sponsor, Syntron Bioresearch, Inc. (2774 Loker Ave. West, Carlsbad, California, 92008), has developed, manufactured, and tested under GMP/GLP guidelines a device for the qualitative testing of urine for the presence of Opiates and its metabolites in a screening format.

The trade name of the device is QuikPac II One Step Opiate Test having a designated common name of Opiate Test System and a classification as a Class II device per 21 CFR § 862.3250. This device is intended for the medical/forensic screening of urine.

Syntron's QuikPac II One Step Opiate Test consists of a chromatographic absorbent device in which the drug or drug metabolites in the sample compete with a drug conjugate immobilized on a porous membrane support for the limited antibody sites. As the test sample flows through the absorbent device, the labeled antibody-dye conjugate binds to the free drug in the specimen forming an antibody:antigen complex. This complex competes with immobilized antigen conjugate in the positive reaction zone and will not produce a magenta color band when the drug is above the detection level of 2000 ng/ml. Unbound dye conjugate binds to the reagent in the control zone, producing a magenta color band, demonstrating that the reagents and device are functioning correctly.

In-house testing of Syntron's QuikPac II One Step Opiate Test yielded a relative sensitivity or agreement within positive samples of 1.000 and relative specificity or agreement within negative samples of 1.000 and an accuracy of 100% when tested against Syva EMIT® II on samples documented to be positive by GC/MS. In clinical trials 829 samples were run and the combined data yielded a relative sensitivity of 100%, a relative specificity of 100% with an accuracy of 100% when compared to Emit II® or GC/MS run at 2000 ng/ml.

All positive samples by either screening method were confirmed by GC/MS. There were no false positive or negative results observed in either the in-house clinical trial or the independent clinical trial.

Additional information on this submission may be obtained by contacting Dr. Cleve W. Laird, President, Drial Consultants, Inc. at 805-522-6223(Ca) or by fax at 805-522-1526.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration  
2098 Gaither Road  
Rockville MD 20850

~~OCT 29 1999~~

Syntron Bioresearch, Inc.  
c/o James Barquest, Ph.D.  
California Department of Health  
Food and Drug Branch  
601 North Seventh Street (MS-357)  
P.O. Box 942732  
Sacramento, California 94234-7320

Re: K993491  
Trade Name: QuikPac II One Step Opiates Test  
Regulatory Class: II  
Product Code: DJG  
Dated: October 8, 1999  
Received: October 15, 1999

Dear Mr. Barquest:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895.

A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

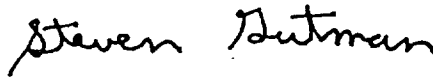
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Under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88), this device may require a CLIA complexity categorization. To determine if it does, you should contact the Centers for Disease Control and Prevention (CDC) at (770) 488-7655.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4588. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597, or at its internet address "<http://www.fda.gov/cdrh/dsma/dsmamain.html>".

Sincerely yours,

A handwritten signature in dark ink, reading "Steven Gutman". The signature is written in a cursive, flowing style.

Steven I. Gutman, M.D, M.B.A.  
Director  
Division of Clinical  
Laboratory Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**510(k) Number (if Known):** To Be Assigned

**Device Name:** QuikPac II One Step Opiates assay

**Indications For Use:**

Syntron's QuikPac II One Step Opiates assay is a rapid, qualitative, competitive binding immunoassay for the determination of Opiates in urine at the cutoff level of 2000 ng/ml. The test provides only preliminary data which should be confirmed by other methods such as gas chromatography/mass spectrophotometry (GC/MS). Clinical considerations and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are indicated<sup>6</sup>. Syntron's QuikPac II One Step Opiates Test is not intended to monitor drug levels, but only to screen urines for the presence of Opiates and its metabolites.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

**Concurrence of CDRH, Office of Device Evaluation (ODE)**

*Jean Cooper*  
(Division Sign-Off)  
Division of Clinical Laboratory Devices  
510(k) Number 1x993491

**Prescription Use:** ✓  
(Per 21 CFR 801.109)

or

**Over The Counter Use:** \_\_\_\_\_  
(Optional Format 1-2-96)